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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,897

06/15/2006

Tetsuo Oishi

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3607

513

7590

10/02/2008

WENDEROTH, LIND & PONACK, L.L.P.

2033 K STREET N. W.

SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

CHEA, THORL

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

10/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,897	<b>Applicant(s)</b> OISHI ET AL.	
	<b>Examiner</b> Thorl Chea	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05122006; 08162006</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This first office action is responsive to the communication on May 12, 2006; claims 15-32 are pending; claims 1-14 has been canceled.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15, 19, 27, 29, 31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kishimoto et al (US 6,733,935 B2). Kishimoto et al discloses a process of irradiating a color photoresist using a photomask for a predetermined color pattern to cure only the resist material corresponding to the portion irradiated with light, and developed using a developing solution to form a color pattern. The color photoresist contains dye and/or a pigment wherein the dye and/or pigment include organic dye. See the document as a whole especially column 11, lines 50-68 and column 8, lines 36-60. The photoresist taught in Kishimoto et al is a photocurable material and contains an organic molecule such as

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organic dye which does not react with photoresist. Kishimoto et al may not disclose the scale of the pattern such as micro/nano scale presented in the claimed invention; the size of the pixel associated with color filter is in the form of a pattern with the size of micro/nano scale. The dye molecule is fixed within the photoresist pattern. The organic molecule that does not react with the photocurable resin is within the scope of organic dye in the photoresist taught in Kishimoto et al. Therefore, the claimed invention lacks novelty. Alternatively, it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the coloring material including the pigments taught therein to provide a process as claimed.

5. Claims 16-18, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al (US 6,733,935 B2) as applied to claims 15-19, 25, 29, 31 above, and further in view of Matsumoto et al (US 4,911,733). The condensed laser has been known Matsumoto et al. see Sheet 2, 3, 5 of 5 and columns 9-10. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the laser beam taught in Matsumoto et al to form a resist pattern taught in Kishimoto et al, and thereby provide a process as claimed.

6. Claims 20-21, 26, 28, 30, 32 are rejected under 35 U.S.C. 103(a) as obvious over the combination of Kawabata et al (US 4,943,512) and Kishimoto et al (US 6,733,935B2). See whole document, especially in column 7, lines 34-51 wherein the cured film pattern is dye with suitable dye to form a dye pattern, wherein the dye fixed within the resin. Kishimoto et al discloses the use of organic dye in the production of color filter in column 8, lines 35-60; and column 9, lines 1-18. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to

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use the organic dye taught in Kishimoto et al to fixed within the resin pattern taught in Kawabata et al, and thereby provide a process as claimed.

7. Claims 22-24, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kawabata et al (US 4,943,512) and Kishimoto et al (US 6,733,935B2) as applied to claims 20-21, 26, 28, 30, 32 above, and further in view of Matsumoto et al (US 4,911,733).

The condensed laser has been known Matsumoto et al. See Sheet 2 , 3, 5 of 5 and columns 9-10. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the laser beam taught in Matsumoto et al to form a resist pattern taught in Kawabata et al, and thereby provide a process as claimed.

8. Claims 31-32 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Kawabata et al (US 4,943,512) or Kishimoto et al (US 6,733,935 B2). The micro/nano article claimed in the present invention has similar structure to that of the color filter taught in either Kawabata et al (US 4,943,512) or Kishimoto et al (US 6,733,935 B2). “(E)ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or obvious from a product of prior art, the claim is unpatentable even though the prior art product was made by different process.” In re Thorpe 777 F.2d 695, 698, 227 USPQ 694, 966 (Fed. Cir. 1985).

### ***Conclusion***

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328.

The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T.C./  
September 29, 2008

/Thorl Chea/  
Primary Examiner, Art Unit 1795